

1. Introduction

1.1. SYSTEM PLAN BACKGROUND

The Vermont Aviation System Plan (VASP) is the Vermont's Agency of Transportation's (AOT) statewide 20-year strategic plan for developing and maintaining the State's 16 public-use airports. The VASP is updated every ten years, and is required for eligible airports to receive federal aviation funding. This Plan will update the 2007 Aviation System and Policy Plan, consistent with Federal Aviation Administration (FAA) planning guidance. The overarching goal of the VASP is to provide a framework that supports informed decision-making related to the development Vermont's aviation system. These decisions play an important role in ensuring that the State's public-use airports support the needs of residents and businesses, and contribute to the nation's aviation system.

System plans examine airports on a statewide level for their integration into the state and nation's aviation system. As such, they provide detailed assessments and evaluations of aviation needs, and recommendations needed to guide the development of individual airport master plans, which provide more specific details on improvements and layout plans. Individual airport master plans will be developed at the conclusion of the VASP and will be posted at - <http://vtrans.vermont.gov/aviation>.

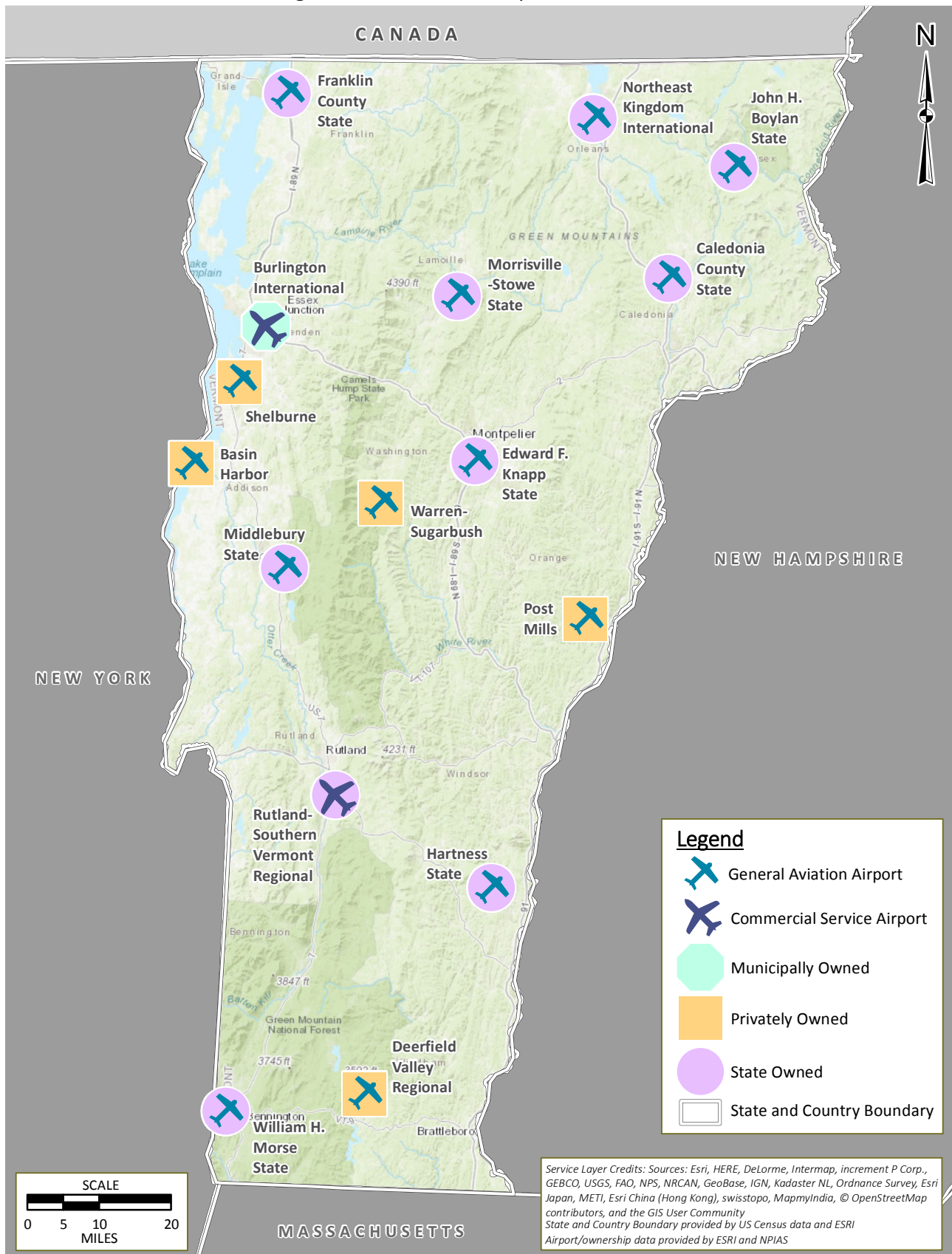
1.1.1. Airports in Vermont

Vermont's aviation system consists of 16 public-use airports, 10 of which are state-owned, 1 municipally-owned, and 3 privately-owned (**Figure 1-1**). Twelve public-use airports are part of the National Plan of Integrated Airport Systems (NPIAS) (**Figure 1-2**). The NPIAS consists of a network of approximately 3,400 existing and proposed airports that are significant to national air transportation and thus eligible to receive federal funding under the Airport Improvement Program (AIP). In addition, two airports (Burlington International Airport and Rutland-Southern Vermont Regional Airport) are classified by the FAA as Commercial Service Airports (publicly-owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) while the other fourteen are classified as General Aviation Airports (public-use airports that do not have scheduled service or have less than 2,500 annual passenger boardings).

Beyond their national significance and designation, Vermont's public-use airports are a critical component of local and regional economies, as well as the State's economy, and used for a variety of purposes, including passenger transportation, recreational flying, on-airport employment, education and training, medical flights, and disaster response activities.

Transportation services are important at all of the State's public-use airports. In calendar year 2016, 593,311 passengers departed or landed at Burlington International Airport while 5,146 used Rutland-Southern Vermont Regional Airport. Combined, the state's public-use commercial service and general aviation airports record 204,351 annual aircraft operations and are home to 427 based general aviation aircraft. When employers and businesses consider locating or expanding their operations in Vermont, proximity to commercial service and general aviation airports are among the more important factors they consider. The diversity and geographic distribution of Vermont's airports are also critical to supporting tourism, one of Vermont's largest industries with a total economic impact estimated at

Figure 1-1: Public Use Airports in Vermont



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Figure 1-2 NPIAS Airports in Vermont



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\$3 billion annually. Critical personal and business services, such as next day mail/package delivery, also depend on Vermont's airports to function properly.

Vermont's airports also support essential services, such as military flights, emergency medical flights, and disaster response. During Tropical Storm Irene, highways and railways sustained damage and cut off substantial parts of the State from essential services and supplies, Vermont's airports served as staging sites and communication centers that coordinate logistics among emergency response teams, first responders, the National Guard, and other entities participating in disaster response activities.

Like many modes of transportation, the lack of adequate and sustained funding threatens the continued operation of Vermont's public-use airports. Airports require both capital investments to maintain infrastructure conditions, safety, and expansions, as well as operating funding to maintain the infrastructure. As part of this Plan Update, the State's aviation projects prioritization system will be evaluated to determine whether any changes are needed to align program and project outcomes with aviation system goals.

1.1.2. Private Airports and Aviation Facilities

In addition to public-use airports, there are over 70 other small privately-owned, private-use airports in Vermont. These airports consist of the following types of facilities:

- Private Airports and Airstrips (Private Use) – Similar to public airports, private airports often have the same types of facilities to support basic flying; however, these airports are owned by private entities. These types of airports are not subject to federal oversight, and are not eligible for federal assistance. Private airstrips consist of turf, gravel or paved runways. These strips are usually day-use only and have no lights for night use.
- Heliports – There are 20 heliports in Vermont, used for personal purposes, military use, or by emergency medical evacuation operators. Many of the larger hospitals have certified trauma units. As part of this certification, the hospitals have helipads for emergency helicopter flights and are typically used by Dartmouth-Hitchcock Advanced Response Team helicopters. Rutland Regional Medical Center and the University of Vermont Medical Center are examples of the state's hospitals with emergency helicopter helipads.
- Seaplane Bases – Vermont has many lakes and large ponds that can accommodate small single engine aircraft that are equipped with floats. Five seaplane bases are located around the state, several of which are located on Lake Champlain including Middle Harbor and Northern Lights Airport. Access from the lake to land is typically provided by a special use dock.

While these other small privately owned, private use airports are not included in the VASP, these facilities and their users contribute to the overall value and performance of the aviation economy in Vermont.

1.2. VASP PLAN PROCESS

The VASP will be developed in compliance with FAA Circular # 50/5070-7 (*The Airport System Planning Process*), which provides guidance on how to conduct statewide airport planning.

There are two core components to this Plan:

- Airport System Component – a data-driven technical evaluation of current and future needs, which culminates with a recommended development plan that identifies a prioritized, strategic approach for developing facilities at system airports over the 20-year planning period.
- Policy Component - the identification and analysis of policy-related recommendations that can improve the performance of Vermont's airport system and allow it to better meet the needs of system users, residents, and businesses.

1.2.1. System Component

The System component of the VASP consists of compiling inventories of various airport characteristics and evaluating current and future system needs based on established facility and service objectives. Sequentially, the process is detailed graphically in **Figure 1-3**, and descriptively just below:

Figure 1-3: VASP System Plan Development Process



Source: McFarland Johnson, 2017.

- Facility and Service Objectives – The initial task in the development of a system plan is establishing the framework for the desired airport system in terms of facilities and services provided. Establishing facility and service objectives will serve as the benchmark to measure the effectiveness of the current and future system.

- Inventory - To establish the baseline for the subsequent analysis and recommendations, a comprehensive system-wide inventory of system airports and aviation assets is undertaken. The inventory analysis focused on the elements identified in the facility and service objectives as well as collecting data needed for the analysis on airport economic benefits.
- Current System Performance – Inventory data is measured against the facility and service objectives, which serve as minimum requirements. The analysis identifies the areas that do not meet the desired objectives, and places airports into categories that reflect existing conditions and each system airport’s role in the statewide system. The analysis provides a quantitative measure of how the system is performing based on the established objectives.
- Forecast – The forecasts developed as part of the system plan focus on the bigger picture, state-level indicators of existing aviation activity such as the number of based aircraft and overall socioeconomic conditions. These indicators inform the development of realistic forecasts of future activity at public-use airports.
- Future System Performance - The deficiencies identified in the current system performance are combined with the forecast for an analysis of potential changes to the airport system. Proposed changes in the Vermont airport system are reevaluated to demonstrate how the system will perform against the same desired objectives in the future.
- System Plan Recommendations - Proposed system changes to determine the future system performance will be combined with system wide policy guidance and operational strategies to summarize the recommendations for the Vermont’s airport system.

1.2.2. Policy Component

The Policy component of the VASP examines aviation in the broader context of state goals, and investigates current and likely future issues to affect Vermont’s aviation system. This assessment of policy issues will guide the development of state aviation goals and strategies to meet the future aviation needs of the State.

Some of the policy issues to be addressed include:

- Aviation’s Integration with Other Transportation Modes
 - Passenger interlining
 - Freight needs
- Land Use-Built Environment Linkages
 - Growth of airports and impacts to surrounding communities and environments
 - Protecting airports from encroachment
 - Understanding limits of airport growth with surrounding built-up areas

- Economic Impacts
 - Economic impacts of airports on local and regional economies, and the state’s economy.
- Financial Sustainability
 - Budget impacts of capital investments, operations and maintenance
 - Private sector involvement in financing airport improvements
 - Incorporating financial sustainability into project prioritization
- Project Prioritization
 - How to target investments
 - How to address FAA requirements / priority focus areas with other priorities, such as economic development.
- Performance Measures
 - Incorporating broader socio-economic performance measures.
- State and Federal Policies Affecting Aviation
 - Funding priorities
 - Pre-construction issues (i.e. permitting, Right-of-Way)
 - Public-Private Partnerships
- Purpose and Role of Aviation in Vermont
 - Local, regional, and state economic development
 - Contribution to the national aviation system
 - Emergency and disaster response, military use, medical transportation.
- Technological Developments
 - Preparing for evolving technologies such as Next Generation Aircraft System (NextGen)
 - Supporting emerging technologies

1.3. ECONOMIC BENEFITS STUDY

As a companion to the VSAP, an Economic Benefits Study will be conducted to quantify the economic impact of Vermont’s public-use airports. Airport inventory data and additional information collected for on-airport employment and regional spending and economic activity trends will be used to formulate an estimate of the economic benefit of aviation in Vermont.

1.4. STAKEHOLDER AND PUBLIC PARTICIPTION (2007)

Throughout the planning process, a collaborative effort will be emphasized to obtain input on findings, policy issues, and recommendations. As such, public and stakeholder outreach and education are important and integral parts of the VASP.

Public outreach will consist of a series of regional public input meetings throughout the planning process, outreach with individual airport officials, and working with the Vermont Aviation Advisory Council (VAAC), who will serve as the project advisory committee for the Plan's development.

Regional input meetings provide an opportunity for interested parties to learn more about the System Plan, aviation in general, and allow for input throughout the different phases of the VASPs development. The times, dates, and locations for these meetings will be provided at the following link - <http://vtrans.vermont.gov/aviation/vermont-airport-system-plan>

The focus of airport officials outreach is to collect information on airport facilities and aviation activity patterns and volumes. In addition, the visits provide an opportunity to gain a firsthand understanding of the issues and needs that are specific to each airport being analyzed as part of the VASP.

The VAAC is an executive-appointed council tasked with evaluating policy and making aviation recommendations to AOT. Its members include aviation stakeholders from across the state with a broad range of knowledge and experience in airports, aviation, and other statewide issues impacting the state aviation system. VAAC meetings are being held through the course of the planning process to help guide the development of the VASP. The VAAC will meet at key project milestones to review and comment on planning documents.

1.4.1. Review of Aviation Vision, Mission, and Goals

A key task of the Outreach component of the VASP will be to review, and update as needed, the Aviation vision, mission, and goals identified in the 2007 Plan, as detailed below:

Vision (from 2007 Plan)

"Vermont's airport system will be accessible, safe and secure, meeting the needs of its business and recreational users, including implementing new technologies to support the future system. The airport system will be preserved and enhanced, while meeting Federal and State guidance and promoting responsible environmental stewardship and land use compatibility. Vermont's airports will be operated as business-oriented facilities focusing on creating opportunities for a return on the investment and will provide intermodal linkages to national transportation systems."

Mission (from 2007 Plan)

"The Vermont Agency of Transportation's aviation mission is to support, maintain, and enhance the 10 State-owned airports. As the owner/operator of 10 State-owned airports, VTrans promotes efficient and effective operation of its airports to assure safe, secure, and reliable air transportation of goods and people, while being environmentally responsible, cost-effective and supportive of Vermont's economy and recreational activities. Emergency services, aviation education, financial responsibility,

and promotion of compatible land use are part of the mission for VTrans, as is playing a supportive role to all airports and aviation statewide”.

Goals (from 2007 Plan)

Table 1-1 lists the purpose and goals from the 2007 VASP.

Table 1-1: 2007 VASP Purpose and Goals

Purpose and Goals
<ul style="list-style-type: none"> • Provide a system of airports that is accessible for people and goods from both the ground and the air throughout the State.
<ul style="list-style-type: none"> • Provide intermodal ground access opportunities and/or services such as rental car, taxi, bus, or bikes.
<ul style="list-style-type: none"> • Preserve and enhance Vermont’s existing airport system’s infrastructure investment through maintenance and rehabilitation to meet future growth and demand as well as providing new infrastructure to meet future needs in support of the national air transportation system when needed.
<ul style="list-style-type: none"> • Plan for future airport development and protect public investment in airports through promotion of compatible land use in the vicinity of airports.
<ul style="list-style-type: none"> • Provide a safe and secure system of airports that meets State and Federal guidelines, including routine inspections of airports such as the 5010 program.
<ul style="list-style-type: none"> • Seek adequate and stable funding, including Federal Aviation Administration (FAA) assistance, and assure appropriate staffing to support the Agency’s mission.
<ul style="list-style-type: none"> • Make timely, sound infrastructure investments derived from airport master plans and based on priorities that are determined through coordination with Vermont’s aviation stakeholders, including use of the Vermont Airport Capital Facilities Program.
<ul style="list-style-type: none"> • Maintain an up-to-date integrated database of air and landside facilities including capital plans and improvements, leaseholds, contacts, relevant zoning as well as the system's performance measures.
<ul style="list-style-type: none"> • Maintain commercial air service at Rutland State Airport and support its development elsewhere in the State, as well as encourage additional commercial and cargo services where appropriate.

- Strive to generate appropriate revenues from the operation of the State-owned airports in support of their continued operation and expansion utilizing a business oriented approach.

Source: Vermont Airport System and Policy Plan, 2007.

1.4.2. How to Get Involved

Stakeholders and members of the public interested in the VASP should refer to the project website – <http://vtrans.vermont.gov/aviation/vermont-airport-system-plan>. The website contains information on the status of the project, project schedule, documents for review, dates of public meetings, and project contact information.